GENERAL REQUIREMENTS FOR ABOVEGROUND STORAGE TANK (AST) INSTALLATIONS

Permits

A permit must be obtained from both the Tucson Fire Department and the Development Services Department. A walk throuah permit process is available weekdav mornings at Development Services, 201 N. Stone Avenue. Bring a site plan showing the location of the tank in respect to adjacent buildings and property lines. Include tank specifications with the site plan.

A permit is required to install, operate, repair or modify AST's used for storage and dispensing of flammable or combustible liquid motor fuels.

The installation plans shall be submitted with permit application. The plans shall include the design, details, and specifications.

Tank construction

Tanks shall be designed and built in accordance with recognized aood engineering standards. Usually, an Underwriters Laboratory, or another nationally recognized testing laboratory listing is required.

Placement of tank

The placement of a tank will depend on the size of the tank and the type of product stored. There are also zoning restrictions which include size limitations on the tanks, substantial setback distances from residential zoning, and tank screening requirements. So it is important that facility owners review all pertinent regulations before making a decision on replacing USTs with ASTS.

Secondary containment

Some means of secondary containment, to hold 100% of the capacity of the largest tank, is required. The secondary containment may be a double-wall tank, or the tank placed within a diked area. If a diked area is used as the secondary containment, a means to remove water must be provided.

Venting

Vent piping is to be installed at not less than 12 feet above adjacent a-round level and 5 feet from a building opening. Emergencg venting is also required.

Dispensing

Dispensing, shall be from a listed pump, drawing from the top of the tank. Gravity dispensing is prohibited. The dispensing location is required to be 10 feet from any building, or property-line, and at least 20 feet from all fixed sources of ignition. Tank opening, pipes, and valves shall be arranged to prevent siphoning.

General Safety

Guard posts or other means shall be provided to protect tanks from vehicular damage. The tank shall be labeled with the product name and no smoking signs shall be affixed. Tanks shall be adequately grounded or bonded to prevent the accumulation of static electricity. A fire extinguisher with a minimum of 2-A, 20 B:C shall be provided.

Additional Requirements for Protected Aboveground Tanks For Motor Vehicle Fuel-Dispensing Stations

Tank Size

The maximum tank size is 10,000 gallons, with a total of 40,000 gallons aggregate capacity. Additional restrictions may apply depending on the property zoning classification.

Flame Arresters

Approved flame arresters shall be installed in normal vents.

Projectile Protection

When required by the chief.

Overfill Prevention

Protected aboveground tanks shall not be filled in excess of 90 percent of their capacity. An overfill prevention system shall be provided for each tank. During tank filling operation, the system shall:

- Provide an independent means of notifying the person filling the tank that the fluid level has reached 85 percent of tank capacity, or other approved means, and
- Automatically shut off the flow of fuel to the tank when the quantity of liquid in the tank reaches 90 percent of tank capacity. For rigid hose fuel-delivery system, an approve means shall be provided to empty the fill hose into the tank after the automatic shutoff device is activated.

A permanent sign shall be provided at the fill point for the tank documenting the filling procedure and the tank calibration chart. The filling procedure shall require the person filling the tank to determine the gallonage required to fill it to 90 percent of capacity before commencing the fill operation.

Fill Pipe Connection

The fill pipe shall be provided with a means for making a direct connection to the tank vehicle's fuel-delivery hose so that the delivery of fuel is not exposed to the open air during the filling operation. When any portion of the fill pipe exterior to the tank extends below the level of the top of the tank, a check valve shall be installed in the fill pipe not more than 12 inches from the fill hose connection.

Spill Containers

A spill container having a capacity of not less than 5 gallons shall be provided for each fill connection. For tanks with a top fill connection, spill containers shall be noncombustible and shall be fixed to the tank and equipped with a manual drain valve which drains into the primary tank. For tanks with a remote fill connection, a portable spill container shall be provided.

Parking of Tank Vehicles

Except during filling operations, tank vehicles shall not be parked within 25 feet of a protected aboveground tank.